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EXAMINER				
MAYO III, WILLIAM H				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/613,433

**Applicant(s)**

MARTINEZ ET AL.

**Examiner**

William H. Mayo III

**Art Unit**

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 68-77 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 68-77 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Amendment Based on 37 CFR 1.121***

1. The application appears to comprise two claims numbered 74. Based on the 37 CFR 1.121, which states:

- (1) *Claim listing.* All of the claims presented in a claim listing shall be presented in ascending numerical order. Consecutive claims having the same status of "canceled" or "not entered" may be aggregated into one statement (e.g., Claims 1-5 (canceled)). The claim listing shall commence on a separate sheet of the amendment document and the sheet(s) that contain the text of any part of the claims shall not contain any other part of the amendment.

Based on the above, the examiner has renumbered second claim 74 as claim number 75. Therefore, the pending claims are 68-77, wherein claims 76-77 are method claims.

### ***Election/Restrictions***

2. This application contains claims 76-77 which are drawn to an invention nonelected with traverse in the phone conversion on December 10, 2004. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

### ***Claim Objections***

3. Claim 71 recites the limitation "the second polyethylene film" in line 2, which is confusing and renders the claim indefinite. It is unclear whether the applicant is referring to the previous mentioned "second polyethylene layer" or introducing a new film layer. If the applicant is referring to the previous mentioned term, then he/she

should recite the term with consistency. If the applicant is referring to a new film layer, then he/she should make the term more distinguishable.

4. Claim 72 recites the limitation "the external conductor" in lines 1-2, which is confusing and renders the claim indefinite. It is unclear whether the applicant is referring to the previous mentioned "second external conductor element" or introducing a new external conductor. If the applicant is referring to the previous mentioned term, then he/she should recite the term with consistency. If the applicant is referring to a new external conductor, then he/she should make the term more distinguishable.

5. Claim 74 recites the limitation "the moisture protection elements" in lines 1-2, which is confusing and renders the claim indefinite. It is unclear whether the applicant is referring to the previous mentioned "swellable tapes" or introducing new moisture protection elements. If the applicant is referring to the previous mentioned term, then he/she should recite the term with consistency. If the applicant is referring to a new moisture protection elements, then he/she should make the term more distinguishable.

6. Claim 75 recites the limitation "the external cover" in line 1, which is confusing and renders the claim indefinite. It is unclear whether the applicant is referring to the previous mentioned "protective cover" or introducing a new external cover. If the applicant is referring to the previous mentioned term, then he/she should recite the term with consistency. If the applicant is referring to a new external cover, then he/she should make the term more distinguishable.

***Claim Interpretation***

7. The examiner assumes that the applicant is referring to previous recited terms. Specifically, "the second polyethylene film" will be interpreted as "the second layer", despite there being no previous reference to any film, "the external conductor" will be interpreted as the second external conductor element", despite there being no previous reference to an "external conductor", "the moisture protection elements" will be interpreted as the "swellable tapes", despite there being no previous reference to "moisture protection elements", and "the external cover" will be interpreted as the "protection cover" despite there being no previous reference to an "external cover".

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 68-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan et al (Pat Num 5,486,648, herein referred to as Chan) in view of Goehlich (Pat Num 6,784,371) and Belli et al (Pat Num 6,455,769, herein referred to as Belli). Chan discloses a dry water resistant coaxial cable (Figs 1-8), which provides improved protection against the migration of water (Col 1, lines 5-16). With respect to claim 68, Chan discloses a cable (Fig 3) consisting of a metal core conductor element (1), a dielectric element (2-4) around the core conductor (1) which is based on three layers, consisting of a first layer (2) being applied to the conductor (1) as an uniform layer (Col 5, lines 17-26) and being a material such as XLPE (i.e. low density polyethylene, Col 4, lines 19-25), a second layer (3) comprising a cellular expansion polymer (i.e. XLPE) on the first layer (2, Col 5, lines 15-25), wherein the cellular expansion polymer is a low dielectric coefficient polymer (i.e. XLPE, Col 5, lines 15-25) and a third layer (4) comprising a reinforcement layer on the second layer (3, Col 5, lines 15-25), wherein the first layer and the third layer (2 & 4) may comprise a material such as (i.e. XLPE,

low density polyethylene, Col 4, lines 19-25), which have the same characteristics (i.e. the first and third layer may be the same material XLPE), a second external conductor (6) surrounding the dielectric element (4) consisting of a water penetration protective element (i.e. swellable tape, Col 6, lines 1-7) capable of keeping the cable dry (Col 1, lines 5-16), wherein the water penetration protective element (5d) may comprise plurality of swellable fibers (5 & 5d as shown in Fig 8) made of polyester fibers (Col 3, lines 64-67), and a protective cover (7) that may be made of low, medium, or high density polyethylene (Col 5, lines 37-40). With respect to claim 69, Chan disclose that the metal core conductor (1) may be made of copper or aluminum (Col 5, lines 11-13). With respect to claim 71, Chan discloses that the second polyethylene layer (3) is applied onto the core conductor (1) and is capable of showing better watertightness and improving superficial appearance (Fig 8). With respect to claim 72, Chan discloses that the second external conductor (6) may be made of copper and aluminum (Col 5, lines 28-30). With respect to claim 73, Chan discloses that the water penetration protective element (5d) may comprise water swellable tape, placed helically around the second external conductor (5, Fig 8). With respect to claim 74, Chan discloses that the water penetration protective element (5a) has an absorption speed (Col 4, lines 14-18). With respect to claim 75, Chan teaches that the protective cover (7) may be made of low, medium, or high density polyethylene (Col 5, lines 37-40).

However, Chan doesn't necessarily disclose the first layer comprising an adhesive wherein the adhesive is selected from the group consisting of vinyl adhesive, acrylic adhesive, and combination thereof (claim 68), nor the adhesive being selected

from the group consisting of ethylene acrylate acid, ethylene vinyl acid, and combinations thereof (claim 70), nor the absorption speed being 15ml/g per minute and absorption capacity of more than 30ml/g (claim 74).

Goehlich teaches a cable (Figs 1-4) comprising a cable core being surrounded by a plurality of insulating layers which overcomes the shortcoming of the prior art cables by preventing water intrusion resulting from a damage outer sheath to travel longitudinally thereby eliminating the possibility of the internal components (Col 1, lines 1-6 & 28-37). Specifically, with respect to claim 68 and 70, Goehlich teaches a cable (Fig 1) comprising a cable core (1), which is surrounded by a plurality of insulation layers (5a & 5b), wherein the insulation layers (5a & 5b) are formed as thin film layers (Col 7, lines 22-34), and comprise an adhesive component (Col 5, lines 8-20), which may be selected from ethylene acrylate acid (Col 5, lines 8-20).

With respect to claims 68 & 70, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the insulation layers of Chan to comprise the adhesive component configuration as taught by Goehlich because Goehlich teaches that such a configuration overcomes the shortcoming of the prior art cables by preventing water intrusion resulting from a damage outer sheath to travel longitudinally thereby eliminating the possibility of the internal components (Col 1, lines 1-6 & 28-37).

With respect to claim 74, it would have been obvious to one having ordinary skill in the art at the time the invention was made to the cable of modified Chan to comprise the absorption speed being 15ml/g per minute and absorption capacity of more than



30ml/g, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Modified Chan doesn't necessarily disclose the second layer comprising a swelling agent, wherein the swelling agent being selected from the group consisting of azodicarbonamide, p-toluene, sulphonyl hydrazide, 5-phenyl tetrazol and combinations, thereof, nor the second external conductor being a tape made of aluminum or copper alloy (claim 68), nor the diameter of the second layer being  $13.0\text{mm} \pm 0.10\text{mm}$  (claim 71), nor the outer conductor being a material formed as a cylindrical pipe which can be longitudinally welded, extruded, or the edges overlapped having an external conductor thickness of at least 0.34mm and a diameter of  $13.7\text{mm} \pm 0.10\text{mm}$  (claim 72), nor the diameter of the protective cover being  $15.5\text{mm} \pm 0.10\text{mm}$  with about  $0.67\text{mm} \pm 0.02\text{mm}$  thickness (claim 75).

Belli teaches a cable (Fig 1) comprising a cable core which overcomes the shortcomings of the prior art cables by effectively addressing both the problem of avoiding penetration and propagation of moisture and/or water inside the cable core, the problem of possible deformations or breakages of the metallic shield due to cable thermal cycles, while maintaining a proper electrical contact between the metal shield and the cable core (Cols 2-3, lines 65-68 & 1-4). Specifically, with respect to claim 68, Belli teaches a cable (Fig 1) comprising a cable core (1), a plurality of insulation layers (2-4), a second external conductor layer in the form of a metallic shielding layer (6), which is made of aluminum or copper (Col 4, lines 56-60), and an outer jacket layer (7),

wherein the second insulation layer (3) may contain an expanding agent (Col 7, lines 1-4), wherein the swelling agent which may be azodicarbonamide, or p-toluene, sulphonyl hydrazide (Col 7, lines 5-10). With respect to claim 71, Belli teaches that the diameter of the insulation layers may be 14mm (Col 9, line 54). With respect to claim 72, Belli teaches that the outer conductor (6) may be a material formed as a cylindrical pipe (i.e. metallic tube) which can be longitudinally welded or the edges overlapped Col 4, lines 55-60), wherein the shield (6) may have an external conductor thickness of at least 0.2mm and a diameter of 14.2mm (Col 10, lines 12-15). With respect to claim 75, Belli teaches that the cable (Fig 1) has a diameter (Fig 2).

With respect to claims 68 and 71-72, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the cable of modified Chan to comprise a swellable agent and shield configuration as taught by Belli because Belli teaches that such a configuration overcomes the shortcomings of the prior art cables by effectively addressing both the problem of avoiding penetration and propagation of moisture and/or water inside the cable core, the problem of possible deformations or breakages of the metallic shield due to cable thermal cycles, while maintaining a proper electrical contact between the metal shield and the cable core (Cols 2-3, lines 65-68 & 1-4).

With respect to claims 71-72 and 74, it would have been obvious to one having ordinary skill in the art at the time the invention was made to the cable of modified Chan to comprise the diameter of the second layer to be  $13.0\text{mm} \pm 0.10\text{mm}$ , the outer conductor to have an thickness of at least 0.34 mm and a diameter of  $13.7\text{mm} \pm$

0.10mm and the protective cover to have an thickness  $15.5 \text{ mm} \pm 0.10 \text{ mm}$  with about  $0.67 \text{ mm} \pm 0.02 \text{ mm}$ , since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

### ***Response to Arguments***

12. Applicant's arguments filed March 9, 2009 have been fully considered but they are not persuasive. Specifically, the applicant argues the following:

- A) It is submitted that if the product claims of Group I are allowed, as per MPEP 821.04, Group II, directed to the process of making and the other claims dependent from the product claims should be rejoined.
- B) The Chan reference cannot be utilized in a 35 USC 103(a) rejection because it contains the CN wires were are not claimed and therefore cannot render the claim obvious based on the closed end claimed language (i.e. consisting of) and therefore the examiner has failed to establish a proper prima facie case of obviousness, because there are no references in the prior art that taken individually or together disclose all of the elements of the present invention, motivate, or suggest the present invention or provide reasonable expectation of success.
- C) There is no motivation or suggestion in the prior art to combine the Chan and Goehlich references to arrive at the presently claimed invention because one would not have been able to do so with a reasonable

expectation that the cable of Chan will function effectively without significantly affecting the other components contained therein.

- D) There is no motivation or suggestion in the prior art to combine the Chan, Goehlich, and Belli references to arrive at the presently claimed invention.
- E) The cited art fails to provide a proper motivation or suggestion because the invention contains elements nowhere found or suggested in the prior art.
- F) The cited art fails to address the problem with which the presently claimed invention is concerned.
- G) The examiner has chosen to improperly ignore the Appellant's limitation in the presently claimed process.
- H) The examiner has engaged in improper hindsight, specifically, improperly utilized the Appellant's own teaching to construct the obviousness rejection.
- I) Belli teaches away from the claimed invention and therefore fails to provide a proper motivation for combining with modified Chan because it teaches utilizing swelling agents without the use of filler.

With respect to argument A, the examiner respectfully traverses. MPEP 821.04 requires the examiner to rejoin the claims of a non elected Group when the claims have a generic claim in common. Specifically, MPEP 821.04 states:

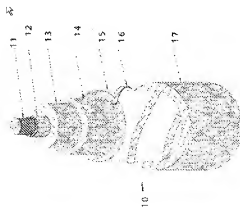
**For example, a requirement for restriction should be withdrawn when a generic claim, linking claim, or subcombination claim is allowable and any previously withdrawn claim depends from or**

**otherwise requires all the limitations thereof.**

**Claims that require all the limitations of an allowable claim will be rejoined and fully examined for patentability in accordance with 37 CFR 1.104. Claims that do not require all the limitations of an allowable claim remain withdrawn from consideration.**

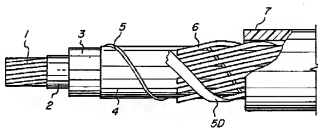
In this case, there were no generic claims, and therefore a rejoinder of the claims is not possible because as explained in the initial restriction, the two Groups are distinct. In light of the above comments, the applicant is required to cancel all non elected claims in order for the response to be proper. Specifically, a complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

With respect to argument B, the examiner respectfully traverses. Firstly, it must be stated that the rejection of the present claims is a 35 USC 103(a) rejection and not a 35 USC 102(b) rejection. Therefore, a known element of a prior art reference may be replaced with an equivalent element, were proper motivation is taught. Below is a detailed explanation of the structure without specific types and materials detailing Figure 1 of the claimed invention



The applicant claims: a cable (10) consisting of a metal core conductor (11), a dielectric element having three individual layers (12-14), a second conductor element (15), one or more water penetration elements (16) and a jacket (17). The applicant's claimed invention has six elements (11-17).

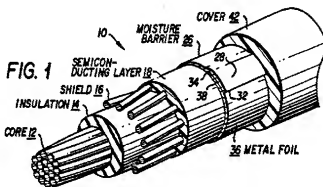
Below is a detailed explanation of the structure without specific types and materials detailing Figure 1 of the claimed invention



The prior art teaches: a cable (Fig 8) consisting of a metal core conductor (1), a dielectric element having three individual layers (2-4), a second conductor element (6), one or more water penetration elements (5 & 5d) and a jacket (7). Prior Art teaches each of the claimed elements.

While the examiner admits that the second external conductive layer (i.e. metal shield) comprises CN wires helically wound as opposed to a metal film layer as claimed, Belli teaches the usage of the shield layer being a metal film (see rejection above). Secondly, it is well known in the art, the second external shielding layer may have a metallic film layer, metallic laminated resin film, helically wound wires, parallel placed wires, braided metallic wires, corrugated metallic layer, etc. As a matter of reference, to support the assertion stated above, examiner direct's attention to Hughley (Pat Num

5,043,538), which teaches a power cable illustrating a second external conductor layer (16) being helically wound wires, as Chan does.



However, while Hughley illustrates the second external conductor (16) being helically wound around the conductor core (12), Hughey also states in Col 4, lines 46-48, that the shield layer may be any configuration known in the art. Specifically, Hughley states

43 In single or multiple conductor configurations, a conductive shield encircles the main layer of insulation 14. This shield may comprise a layer of conducting shield wires 16 as shown or a braided shield or an enclosing metal sheet, screen, or foil shield may be used.

It is the examiner's opinion, based on the teaching of the Belli reference and the general knowledge in the art, as stated in Hughley, that it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the cable of modified Chan to comprise a shield configuration as taught by Belli because Belli teaches that such a configuration overcomes the shortcomings of the prior art cables by effectively addressing both the problem of avoiding penetration and propagation of moisture and/or water inside the cable core and the problem of possible deformations or breakages of the metallic shield due to cable thermal cycles, while

maintaining a proper electrical contact between the metal shield and the cable core (Cols 2-3, lines 65-68 & 1-4). Therefore, while the applicant has claimed the "consisting of" language, clearly the CN wires are known in the art to be a second external conductor. In light of the above comments, the examiner respectfully submits that the 35 USC 103(a) rejection is proper.

With respect to arguments C-D it has been held that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Clearly, the examiner has conceded that Chan doesn't disclose the first layer comprising an adhesive, specifically, an adhesive being selected from the group consisting of vinyl adhesive, acrylic adhesive, and combination thereof or ethylene acrylate acid, ethylene vinyl acid, and combinations thereof having an absorption speed being 15ml/g per minute and absorption capacity of more than 30ml/g. The examiner also recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Goehlich teaches a cable (Figs 1-4) comprising a cable core being surrounded by a plurality of insulating layers which overcomes the shortcoming of the prior art cables by preventing water intrusion resulting from a damage outer sheath



to travel longitudinally thereby eliminating the possibility of the internal components (Col 1, lines 1-6 & 28-37). Based on the teaching of Goehlich, there clearly exists a motivation to modify Chan with the adhesives of Goehlich, since Chan is also concerned with preventing against the migration of water (Col 1, lines 5-16). Thirdly, all of the claimed subject matter is disclosed in the combination of Chan and Goehlich. The MPEP clearly states that

**ESTABLISHING A PRIMA FACIE CASE OF OBVIOUSNESS**

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143 - § 2143.03 for decisions pertinent to each of these criteria.

As explained above, there clearly exist a motivation to combine the teaching of Chan and Goehlich as detailed above, because both are analogous art (data cables) and are concerned with the same problem solving area (prevention of water migration). Secondly, there exists a reasonable amount of expectation of success, since they both are data cable concerned with prevention of water migration. Thirdly, all of the claimed limitations are taught in the combination of the reference, and therefore a proper prima facie case of obviousness has been established.

The appellant also argues that none of the patents cited are analogous art, as an argument for supporting arguments A & B. The examiner respectfully traverses this argument also. The MPEP is clear what constitutes analogous art. Specifically, the MPEP 2141.01 states:

**TO RELY ON A REFERENCE UNDER 35 U.S.C. 103, IT MUST BE**

**ANALOGOUS PRIOR ART**

The examiner must determine what is "analogous prior art" for the purpose of analyzing the obviousness of the subject matter at issue. "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." In re Oetiker, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). See also In re Deminski, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986); In re Clay, 966 F.2d 656, 659, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992) ("A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem."); Wang Laboratories Inc. v. Toshiba Corp., 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993); and State Contracting & Eng'g Corp. v. Condotte America, Inc., 346 F.3d 1057, 1069, 68 USPQ2d 1481, 1490 (Fed. Cir. 2003) (where the general scope of a reference is outside the pertinent field of endeavor, the reference may be considered analogous art if subject matter disclosed therein is relevant to the particular problem with which the inventor is involved).

Clearly, all of the cited references disclose that the cable may be utilized as a power cables or communication cables, which is in the same field of endeavor as appellant's

(see Appellant's Background of Invention section, Pages 1-2). Specifically, Chan discloses in Column 1, lines 5-8,

This invention relates to electrical power cables which have concentric neutral wires (CN wires) applied helically over the cable core as a metallic ground shield which is then covered by a protective polymeric jacket. More particularly,

Goehlich discloses in Column 3, lines 20-22,

Such cable according to the present invention, for example may be a power cable, a copper telecom cable, and a fibre optical cable.

Secondly, all of the cited references are concerned with the same problem solving area as the appellant's which is to prevent the entry of water into the cable which can cause the cable to fail (see Appellant's Background of Invention section, Pages 1-2).

Specifically, Chan discloses in Column 1, lines 8-15,

covered by a protective polymeric jacket. More particularly, the invention relates to an improved protection against migration of water in such power cables by providing suitable continuous, elongated water swellable elements, such as yarns, filaments, strands or strips in contact with the CN wires and so disposed in relation to said CN wires as to block the passage of water within the cable in the longitudinal direction.

Goehlich discloses in Column 1, lines 18-27,

In such a cable conditions can occur in which substances like water intrude through the partially damaged outer sheath and such substance travels between the inner cable sheath and outer cable sheath in longitudinal direction leading to damage of the cable by chemical and electrochemical effects in a much larger cable section than the section of the partial damage of the outer sheath and inaccurate substance intrusion measurements. The invention particularly addresses these problems in order to limit damaged areas and to increase the measurement accuracy and lifetime of the cable.

To be considered analogous art only one of the two guidelines have to exist, however in this case both guidelines exist to establish that Chan and Goehlich are analogous art.

In light of the above comments, the examiner willfully submits that the 35 USC 103(a) rejection is proper and just.

With respect to argument C, the examiner respectfully traverses. The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

With respect to arguments I, the examiner respectfully traverses. It should be stated that modified Chan teaches all except the second layer comprising a swelling agent (claim 14), nor the swelling agent being selected from the group consisting of azodicarbonamide, p-toluene, sulphonyl hydrazide, 5-phenyl tetrazol and combinations, thereof (claim 15), nor the diameter of the second layer being  $13.0\text{mm} \pm 0.10\text{mm}$  (claim 21), nor the outer conductor being a material formed as a cylindrical pipe which can be longitudinally welded, extruded, or the edges overlapped having an external conductor thickness of at least  $0.34\text{mm}$  and a diameter of  $13.7\text{mm} \pm 0.10\text{mm}$  (claim 22), nor the diameter of the protective cover being  $15.5\text{mm} \pm 0.10\text{mm}$  with about  $0.67\text{mm} \pm 0.02\text{mm}$  thickness (claim 26), nor the cable comprising an antioxidants (claim 27). Belli is only relied on for its teaching of utilizing a specific adhesive for providing a waterproof cable. Specifically, the examiner recognizes that Belli teaches the usage of filler materials, which is completely opposite of what the appellant is claiming. However, it has been held that patents are relevant for all they disclose. Specifically,

"The use of patents as references is not limited to what the patentees describe

as their own inventions or to the problems with which they are concerned. They are part of the literature of the art, relevant for all they contain." In re Heck, 699 F.2d 1331, 1332-33, 216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting In re Lemelson, 397 F.2d 1006, 1009, 158 USPQ 275, 277 (CCPA 1968))."

The courts have been consistent that a reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art, including non-preferred embodiments. See *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989). See also *Celeritas Technologies Ltd. v. Rockwell International Corp.*, 150 F.3d 1354, 1361, 47 USPQ2d 1516, 1522-23 (Fed. Cir. 1998) (The court held that the prior art anticipated the claims even though it taught away from the claimed invention. "The fact that a modem with a single carrier data signal is shown to be less than optimal does not vitiate the fact that it is disclosed").

In this case, Belli is only disclosed for its teaching of various materials known and being utilized in the cables, when preventing water penetration is an objective. Given the above stated guidelines, the examiner is proper to rely on Belli for its teaching of the various materials and the dimension of such layers and that the 35 USC 103(a) utilizing Belli is proper and just. Belli, also is analogous art. Specifically, Belli discloses in Col 1, lines 12-15,

The present invention relates to an electrical cable, in particular for medium- or high-voltage power transmission or distribution, having a semiconductive water-blocking expanded layer. In the present description, the term

Belli discloses in Col 1, lines 12-15,

cable and the metal shield. Moreover, the presence of the water-swellaable material dispersed into the expanded layer is able to effectively block moisture and/or water, thus avoiding the use of water-swellaable tapes or of free water-swellaable powders.

Based on the above comments, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the cable of modified Chan to comprise the a swellable agent and various insulation material configuration as taught by Belli because Belli teaches that such a configuration overcomes the shortcomings of the prior art cables by effectively addressing both the problem of avoiding penetration and propagation of moisture and/or water inside the cable core, the problem of possible deformations or breakages of the metallic shield due to cable thermal cycles, while maintaining a proper electrical contact between the metal shield and the cable core (Cols 2-3, lines 65-68 & 1-4).

With respect to arguments E & F, the examiner respectfully traverses. It has been established above, that there exist a proper motivation for combining the references. (see rebuttals to arguments C-D ) and that the 35 USC 103(a) rejections are proper and just and that all claimed elements have been addressed. Secondly, it has also been established that the claimed invention and the prior art cited, all disclose the same problem solving area, which is to prevent water penetration into a cable. While the prior art may not disclose all of the problem solving areas of the appellant, it doesn't have to. Specifically, it has been held that the fact that appellant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter.

1985). Therefore, the examiner willfully submits that the 35 USC 103(a) rejections are proper and just.

With respect to argument H, the examiner respectfully traverses. It must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the appellant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Lastly, the Board Of Patent Appeals, has stated the following:

#### CONCLUSION OF LAW

The Examiner has established the obviousness of claims.

#### ORDER

The obviousness rejections of claims are affirmed.

#### ***Conclusion***

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

#### ***Communication***

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Mayo III whose telephone number is (571)-272-1978. The examiner can normally be reached on M-F 8:30am-6:00 pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F.F. Gutierrez can be reached on (571) 272-2245 or (571) 272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William H. Mayo III/

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May 16, 2009